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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,830	08/27/2003	Akira Sumiyashiki	740165-361	3922
25570 7590 12/20/2006 ROBERTS, MLOTKOWSKI & HOBBS P. O. BOX 10064 MCLEAN, VA 22102-8064			EXAMINER HAUGLAND, SCOTT J	
			ART UNIT 3654	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			12/20/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/648,830	SUMIYASHIKI, AKIRA	
	Examiner	Art Unit	
	Scott Haugland	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-14 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, line 17, it appears that "e ale" should be --be able--.

In claim 5, line 28, it appears that "came" should be --cam--.

The language of claim 5, lines 27-29 is unclear. The switching mechanism and holding device are claimed as different elements which is inconsistent with the recitation of a common element (cam) on line 29.

Claim 8 recites the limitation "the axially central portion" on line 3. There is insufficient antecedent basis for this limitation in the claim.

The relationship between the cam mechanism of claim 12, line 2 and the switching mechanism and cam of claim 5, lines 27-29 is not clearly set forth in the claims. The cam mechanism appears to include at least the previously recited cam.

Claim 19 recites the limitation "said cam" on line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 15, 16, 18, 21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Butenop (U.S. Pat. No. 5,348,248).

Butenop discloses a webbing retractor in which, when a webbing for restraining a vehicle occupant is suddenly pulled-out, an inertia plate M provided integrally and coaxially at an axial end side of a take-up shaft, which is supported so as to be rotatable around an axis at a frame 11 fixed to a vehicle body and which takes-up the webbing in layers by urging force, causes a rotation delay with respect to the take-up shaft, and causes a swingably-supported pawl 42 to swing and causes the pawl to engage with engagement teeth 43, thereby locking rotation of the take-up shaft in a webbing pull-out direction, wherein the engagement teeth 43 are provided so as to be rotatable around an axis with respect to the frame, and the webbing retractor comprises a holding device including 20, 21 which, when a vehicle occupant cancels an applied state of the webbing and an entire amount of the webbing is taken-up onto the take-up shaft by urging force, holds the engagement teeth 43 in a rotatable state, and which, at other times, holds the engagement teeth in a state in which rotation of the engagement teeth in the webbing pull-out direction is impeded. The retractor includes a switching

mechanism for switching from an ALR mode to an ELR mode that forms part of the holding device. When 20, 21 is moved out of engagement with 17, lever 16 remains engageable with teeth 41 of 40 (Figs. 1, 2) until projection 24 engages lever 16.

With regard to claims 2 and 18, arm 22 is seen to be part of a cam mechanism. In addition, the pawl 20 is controllable by a cam mechanism as required by the claim.

With regard to claim 4, the retractor can be controlled in the claimed manner.

The method of claims 15, 16, and 18 is inherent in the operation of the device.

With regard to claim 21, note second pawl 21.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumiyashiki et al (U.S. Pat. Appl. Pub. No. 2002/0008171) in view of Butenop (U.S. Pat. No. 5,348,248).

Sumiyashiki et al discloses a webbing retractor comprising: a take-up shaft 14 taking-up, in layers and by urging force, a webbing 50 for restraining a vehicle occupant; a frame 12 fixed to a vehicle body and rotatably supporting both end portions of the take-up shaft, and lock teeth 12d, 12e are formed at a surface of the frame which

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surface intersects an end portion of the take-up shaft; a lock plate 16 provided at at least one end portion side of the take-up shaft, and able to move between a position of engagement with the lock teeth 12d, 12e and a position of non-engagement with the lock teeth, the lock plate impeding rotation of the take-up shaft in a webbing pull-out direction by engaging with the lock teeth; a lock wheel 18 provided coaxially at one end portion side of the take-up shaft, and the lock wheel 18 usually rotates integrally with the take-up shaft and holds the lock plate 16 at the position of non-engagement, and when relative rotation arises between the take-up shaft 14 and the lock wheel 18, the lock wheel moves the lock plate 16 to the position of engagement; a pawl 24 swingably supported at the lock wheel, and usually held at a non-swung position by urging force; an inertia plate 22 disposed coaxially to the lock wheel and provided so as to be able to rotate relatively within a predetermined range, and the inertia plate usually rotates integrally with the lock wheel, and when the webbing is suddenly pulled-out, the inertia plate causes a rotation delay with respect to the take-up shaft, and moves the pawl 24 from the non-swung position to a swung position against urging force of spring 26; an engaging member 28a disposed coaxially to the lock wheel, and engagement teeth 28b are formed at the engaging member at a peripheral surface side thereof opposing the pawl 24, and the engagement teeth engage with the pawl and stop rotation of the lock wheel in the webbing pull-out direction due to the pawl moving to the swung position.

Sumiyashiki et al does not disclose that engaging member 28a is rotatable and does not disclose a holding device which, when a vehicle occupant cancels an applied state of the webbing and an entire amount of the webbing is taken-up onto the take-up

shaft by urging force, holds the engaging member in a rotatable state, and which, at other times, holds the engaging member in a state in which rotation of the engaging member in the webbing pull-out direction is impeded.

Butenop teaches providing a webbing retractor with a rotatable engaging member 17, 43 and a holding device 20, 21 that holds the engaging member in a rotatable state when a vehicle occupant cancels an applied state of the webbing and an entire amount of the webbing is taken-up onto the take-up shaft, and which, at other times, holds the engaging member in a state in which rotation of the engaging member in the webbing pull-out direction is impeded.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the webbing retractor of Sumiyashiki et al with a rotatable engaging member and a holding device that holds the engaging member in a rotatable state when the webbing is not applied to a vehicle occupant and the entire webbing is taken-up onto the take-up shaft as taught by Butenop to prevent locking up of the reel of the retractor when the webbing is fully wound on the take-up shaft.

With regard to claim 8, it would have been obvious to provide a pair of retaining means on the inner surface of the boss as is old and well known. Such retaining means are seen to be claws as broadly disclosed and claimed.

With regard to claims 5 and 12, arm 22 is seen to be part of a cam mechanism including belt coil 12. In addition, the pawl 20 is controllable by a cam mechanism as required by the claim.

With regard to claim 14, the retractor can be controlled in the claimed manner.

With regard to claim 22, note second pawl 21.

Claim 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Butenop (U.S. Pat. No. 5,348,248) in view of Frost (U.S. Pat. No. 3,598,336).

Butenop is described above.

Butenop does not disclose the step of canceling impeding of rotation of the engaging member by determining that the webbing is in a state in which the entire amount of the webbing is taken-up by sensing a number of times of rotation of the take-up shaft. Butenop does not disclose a cam plate having an axis of rotation that is co-linear with an axis of rotation of the take-up shaft.

Frost teaches determining the amount of webbing wound on a take-up shaft of a webbing retractor by counting the number of times the shaft has rotated as an alternative to sensing the amount of webbing on the retractor (col. 1 lines 11-15). Frost teaches providing a webbing retractor with a cam plate 106 having an axis of rotation that is co-linear with an axis of rotation of a take-up shaft for holding a locking pawl 60 in a disengaged position, preventing locking of a webbing spool.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to sense the number of times the take-up shaft has rotated to determine when the webbing has been fully wound onto the take-up shaft of the retractor in lieu of sensing the diameter as taught by Frost since Frost teaches counting take-up shaft revolutions is a suitable alternative to sensing the amount of belt on the take-up. It would have been obvious to provide Butenop with a cam plate having an

axis of rotation that is co-linear with an axis of rotation of a take-up shaft as taught by Frost to provide additional control of locking of the spool or to simplify mounting of elements corresponding to 16 of Butenop and 78 of Frost.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sumiyashiki et al in view of Butenop as applied to claim 5 above, and further in view of Frost.

Sumiyashiki et al does not disclose a cam plate having an axis of rotation that is co-linear with an axis of rotation of the take-up shaft.

Frost teaches providing a webbing retractor with a cam plate 106 having an axis of rotation that is co-linear with an axis of rotation of a take-up shaft for holding a locking pawl 60 in a disengaged position, preventing locking of a webbing spool.

It would have been obvious to provide Sumiyashiki et al with a cam plate having an axis of rotation that is co-linear with an axis of rotation of a take-up shaft as taught by Frost to provide additional control of locking of the spool or to simplify mounting of elements corresponding to 16 of Butenop.

Response to Arguments

Applicant's arguments filed 10/4/06 have been fully considered but they are not persuasive.

Applicant argues that Butenop does not disclose or suggest a switching mechanism for switching operation of a retractor from an ALR mode to an ELR mode or

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such a switching mechanism that forms part of a the holding device as recited in claim 1. However, the switching mechanism including in Butenop, including elements 20, 21, 24, and 16, switches from an ALR mode to an ELR mode. When 20, 21 is moved out of engagement with 17, lever 16 remains engageable with teeth 41 of 40 (Figs. 1, 2) until projection 24 engages lever 16. While 16 is engageable with teeth 41, the vehicle sensor lock 14 is operable. When 20, 21 is out of engagement with teeth 17, the belt sensitive locking mechanism is disabled.

Applicant argues that claim 1 is unpatentable over any combination of Butenop, Sumiyashiki, or Frost since it would have a pawl having a sensing arm engageable with the wound up safety belt coil which is completely separate and mechanically independent from an ALR to ELR switching mechanism. However, incorporation of the mechanism taught by Butenop into the apparatus of Sumiyashiki et al to prevent belt locking in the fully wound state would result in a device having a mode switching mechanism that includes a holding device that prevents belt locking in the fully wound state.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. The new ground of rejection was necessitated by the addition of claim 20 including the limitation of a cam plate having an axis of rotation that is co-linear with an axis of rotation of the take-up shaft. Accordingly, **THIS ACTION IS MADE**

FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

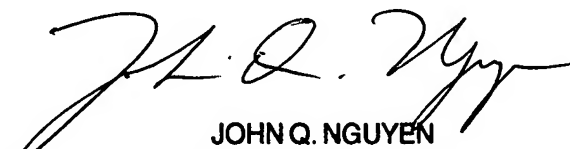
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Mon. - Fri. 10:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


sjh
12/11/06


JOHN Q. NGUYEN
PRIMARY EXAMINER